

Appl. No.: 10/786,407
Reply to Office Action of: January 6, 2005

Remarks

Claims 1-14 are pending in the application. Claims 1-14 stand rejected. The following remarks are addressed to the referenced paragraphs of the Office Action dated January 6, 2005.

Claim Rejection under 35 U.S.C. § 112

Claim 1-14 are rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, it is argued that the particular structure and arrangement of the "transition region" is not clear. Applicants respectfully contend that claim 1, as amended, clearly indicates that the transition region is that portion of the core where it is connected to the yoke. This definition is consistent with the specification. See, Fig. 3, and page 8, lines 12-20, wherein an abutment face 27 (i.e., transition region with the yoke) has an enlarged cross-section. Moreover, this definition is consistent with the plain meaning of the word transition, which means passage from one state, stage, or place to another. Hence, the core connected to the yoke at a transition region, would clearly indicate that the transition region is the region or location of the core where it is connected to the yoke, the region where the structure changes from the core to the yoke.

Regarding claims 5 and 6, it is argued that "designed to be" and "designed so as" do not clearly define structure. Claims 5 and 6 are amended herein to clearly define structure of cross-sectional size and freedom from undercuts, respectively.

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Claim Rejection under 35 U.S.C. § 102

Claims 1-14 are rejected under 35 U.S.C. §102(b), as being anticipated by Shibata, et al. (US 5,945,900).

Applicants respectfully contend that claim 1 is allowable, because it includes a feature that is neither disclosed nor suggested by the cited references, namely "the cross-sectional area in the transition region being greater than the cross-sectional area in the central region of the core." Shibata et al. show a relay that has a first and second core piece 24, 25 respectively. As clearly shown in Fig. 1, the core 30 does not have an increased cross-sectional area where it transitions to the yoke (i.e., at the bend of the second core element 25) as compared to the center region of the core. Nor do Shibata et al. or any of the other cited references suggest such increased cross-sectional area at the transition region with the yoke as compared to the central region of the core.

This feature is significant, because, as described in the application, the reduced cross-section at the central region allows for more windings, increasing the magnetic flux that can be generated in the same area, and increased cross-section at the transition allows for greater magnetic flux to be conveyed from the core to the yoke.

Accordingly, Applicants respectfully contend that claim 1 is allowable.

Claims 2-14 depend from claim 1, and Applicants respectfully contend that claims 2-14 are allowable for the reason that claim 1 is allowable.

Claim Rejection under 35 U.S.C. § 103

Claim 3 is rejected under 35 U.S.C. §103 (a), as being unpatentable over Shibata, et al., in view of Martino (US 5,084,688).

As previously stated, Applicants respectfully contend that claim 3 is allowable for the reason that claim 1, from which it depends, is allowable.

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Conclusion

In view of the amendments and arguments presented herein, the application is considered to be in condition for allowance. Reconsideration and passage to issue is respectfully requested.

Please charge any additional fees and/or credit any overpayments associated with this application to Deposit Order Account No. 501581.

Respectfully submitted,



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